

IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1(Currently Amended). An apparatus for improving information transfers in network applications comprising:

a data input, coupled to a data processing block, ~~adapted to receiving~~ configured to receive data;

a programmable counter, having a first input coupled to said data processing block and a second input coupled to an interrupt generator and an output coupled to said interrupt generator, ~~adapted to incrementing~~ said programmable counter is configured to

increment a value stored in said programmable counter each time said programmable counter receives a signal from said data processing block and ~~comparing~~ compare said value stored in said programmable counter with a count threshold, and ~~signaling signal~~ signal said interrupt generator when said value stored in said programmable counter is equal to said count threshold;

said interrupt generator, having an input coupled to said programmable counter and an output coupled to a signal output, ~~adapted~~ configured to generate an interrupt upon receipt of a signal from said programmable counter;

said data processing block, having an input coupled to said data input and an output coupled to said programmable counter, the data processing block is configured to examine ~~adapted to examining~~ said data from said data input for presence of an end-of-packet flag and ~~signaling signal~~ signal said programmable counter upon detecting said end-of-packet flag; and

said signal output, coupled to said interrupt generator, adapted to outputting ~~is configured to output~~ said interrupt.

2(Currently Amended). An apparatus according to Claim 1, wherein said data processing block is ~~adapted~~ configured to ~~signaling signal~~ signal said programmable counter upon detecting an end-of-PDU marker.

3(Currently Amended). An apparatus according to Claim 1, wherein:
said interrupt generator having a second input coupled to a timer and an output coupled to
said timer; and
said timer having an input coupled to said interrupt generator and an output coupled to
said interrupt generator, the timer is configured adapted to begin measuring elapsed time upon
arrival of a first data packet and signaling signal said interrupt generator when said elapsed time
is equal to a time threshold.

4(Currently Amended). An apparatus according to Claim 3, wherein said timer is
configured adapted to begin measuring elapsed time upon arrival of a first end-of-PDU marker.

5(Original). An apparatus according to Claim 3, wherein said programmable counter and said
timer are reset after said programmable counter signals said interrupt generator.

6(Original). An apparatus according to Claim 3, wherein said programmable counter and said
timer are reset after said timer signals said interrupt generator.

7(Original). An apparatus according to Claim 1, wherein said programmable counter is reset
after said programmable counter signals said interrupt generator.

8(Original). A method for improving information transfers in network applications comprising
the steps of:

receiving data from a network connection;
examining said data for presence of an end-of-packet flag;
incrementing a value in a programmable counter if said end-of-packet flag is present;
comparing said value in said programmable counter with a count threshold; and
asserting an interrupt if said value in said programmable counter is equal to said count
threshold.

9(Original). A method according to Claim 8, wherein said step of incrementing said value in said programmable counter occurs if an end-of-PDU marker is detected.

10(Original). A method according to Claim 8, further comprising the steps of:

measuring elapsed time since receipt of a first data packet; and
asserting an interrupt if said measured elapsed time is equal to a time threshold.

11(Original). A method according to Claim 10, wherein said step of measuring elapsed time begins upon detection of first end-of-PDU marker.

12(Original). A method according to Claim 10, further comprising the step of resetting said elapsed time measurement and said programmable counter after asserting said interrupt.

13(Original). A method according to Claim 8, further comprising the step of resetting said programmable counter after asserting said interrupt.

14(Currently Amended). A network device with an apparatus for improved information transfer in network connections comprising:

a data input, ~~adapted~~ configured to receive data;

said data processing block, having an input coupled to said data input and an output coupled to a programmable counter and a shared memory, ~~adapted~~ configured to saving said data to said shared memory, examining said data from said data input for presence of an end-of-packet flag, and signaling said programmable counter upon detecting said end-of-packet flag;

a programmable counter, having a first input coupled to said data processing block and a second input coupled to an interrupt generator and an output coupled to said interrupt generator, ~~adapted~~ configured to ~~incrementing~~

~~increment~~ a value stored in said programmable counter each time said programmable counter receives a signal from said data processing block and ~~comparing~~
~~compare~~ said value stored in said programmable counter with a count threshold and
~~signaling~~

signal said interrupt generator when said value stored in said programmable counter is equal to said count threshold;

said interrupt generator, having an input coupled to said programmable counter and an output coupled to a network device microprocessor, adapted configured to generate an interrupt upon receipt of signal from said programmable counter;

said network device microprocessor, having a first input coupled to said interrupt generator and a second input coupled to said shared memory, adapted to receiving configured to receive said interrupt signal from said interrupt generator, and reading read said data from said shared memory; and

said shared memory, coupled to said network device microprocessor and said data processing block, adapted to storing configured to store said data.

15(Currently Amended). A network device according to Claim 14, wherein said data processing block is adapted configured to signaling signal said programmable counter upon detecting an end-of-PDU marker.

16(Currently Amended). A network device according to Claim 14, wherein:

said interrupt generator having a second input coupled to a timer; and
said timer having an input coupled to said interrupt generator and an output coupled to said interrupt generator, adapted configured to begin measuring elapsed time upon arrival of a first data packet and signaling signal said interrupt timer when said elapsed time is equal to a time threshold.

17(Currently Amended). A network device according to Claim 16, wherein said timer is adapted configured to begin measuring elapsed time upon arrival of a first end-of-PDU marker.

18(Original). A network device according to Claim 16, wherein said programmable counter and said timer are reset after said programmable counter signals said interrupt generator.

19(Original). A network device according to Claim 16, wherein said programmable counter and said timer are reset after said timer signals said interrupt generator.

20(Original). A network device according to Claim 14, wherein said programmable counter is reset after said programmable counter signals said interrupt generator.

21(Original). A network device according to Claim 14, wherein each network connection has a different programmable counter associated with each logical network connection.

22(Original). A network device according to Claim 16, wherein each network connection has a different programmable counter and a different timer associated with each logical network connection.